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09/997,450

11/30/2001

Shamim M. Malik

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3442

45159 7590 01/13/2010  
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EXAMINER

SEVERSON, RYAN J

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/997,450  
Filing Date: November 30, 2001  
Appellant(s): MALIK ET AL.

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Gloria M. Gusler  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 10/12/2009 appealing from the Office action mailed 5/12/2009.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

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Shamim M. Malik et al. "Development of an energetic ion assisted mixing and deposition process for  $TiN_x$  and diamondlike carbon films, using a co-axial geometry in plasma source ion implantation", *J. Vac. Sci. Technol. A* 15(6), Nov/Dec 1997.

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**Claims 2-6, 19, 21, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lazarov et al. (6,110,204) in view of Shamim M. Malik et al. ("Development of an energetic ion assisted mixing and deposition process for  $TiN_x$  and diamondlike carbon films, using a co-axial geometry in plasma source ion implantation").** Lazarov et al. disclose the titanium-nitride-oxide ( $TiN_xO_y$ ) compound disposed about a stent substrate substantially as claimed. However, Lazarov et al. do not disclose the compound is implanted on a molecular level within the surface of the stent. Attention is drawn to Malik et al., who teach implantation of various compounds (including Ti, N, and O) within the surface of a metallic substrate to increase the ability of the compound to adhere to the substrate. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have implanted the compound of Lazarov et al. within the surface of the stent, as taught by Malik et al., to increase the adhesion between the compound and the substrate (the stent).

Regarding claim 24, it is well-known in the art to use stainless steel as a material to make stents.

**(10) Response to Argument**

Appellant argues that the combination of Lazarov et al. and Malik et al. fail to disclose implanting the TiN within the surface of the stent. However, as set forth in the combination above, it would have been obvious to have implanted the  $\text{TiN}_x\text{O}_y$  within the surface of the stent. The compound comprises Ti and N, and also comprises TiN. To clarify, if  $\text{TiN}_x\text{O}_y$  were implanted within the surface of the stent as suggested, inherently a first region (comprising Ti or N) is implanted within the stent, and inherently a second region (comprising TiN) is implanted within the stent, and the complete compound ( $\text{TiN}_x\text{O}_y$ ) covers those regions. The claims do not require that *only* Ti or N makes up the first region, and likewise the claims do not require that *only* TiN makes up the second region. Ti and N are a part of the  $\text{TiN}_x\text{O}_y$  compound, and since the claims do not limit the implanting to only Ti or N (or the compound thereof), the prior art reads on the claims as presented. To use the appellant's words, implanting the compound  $\text{TiN}_x\text{O}_y$  within the surface of the stent inherently creates the "tri-region construct" because a region is merely an arbitrary area, and the claimed regions are not defined by the claims in such a way as to prevent the interpretation set forth above.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Ryan J. Severson/  
Examiner, Art Unit 3731

Conferees:

/Anh Tuan T. Nguyen/  
Supervisory Patent Examiner, Art Unit 3731

Mike Milano  
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